

PYNE RED ORE MINE
(Woodward Iron Company's Pyne Mine)
Red Mountain Iron Ore Mining-
Birmingham Industrial District
AL Route 150,
4 miles S. of Bessemer
Bessemer vic.
Jefferson County
Alabama

HAER No. AL-28

HAER
ALA
37-BES.V
9-

PHOTOGRAPHS

Historic American Engineering Record
National Park Service
Department of the Interior
P.O. Box 37127
Washington, DC 20013-7127

ADDENDUM TO
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WRITTEN HISTORICAL & DESCRIPTIVE DATA

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Location: AL 150, 4 miles south of Bessemer USGS Quad:
Greenwood UTM: 508220/369266, Bessemer vicinity,
Jefferson County, Alabama.

Present
Owners: Jimmy Moore and Judy Mathis; William McGowen

Date of
Construction: 1919-1950s

Architect/ Engineer
Builder: (Multiple) John Hager, Woodward Iron

Project
Information: This report is based upon written documentation
donated by the Birmingham Historical Society,
reformatted to HABS/HAER guidelines.

Description: The Pyne Mine site covers about five acres and
consists of a shaft mine headframe constructed of
structural steel, four red brick buildings and a
variety of concrete foundation, pier and abutment
remnants. Some of the foundation work is probably
part of an ore briquetting and heavy media
concentration plant. While the function of the
individual buildings could not be determined at
the time of the field visit, historical records
indicate that they include a 500-man bathhouse, a
compressor house, an air compressor house, an
electrical substation, an ore crushing and
screening plant and a hoist house. It appears that
the only original building that is not still
standing is the crushing and screening plant.
While the mine equipment appears to have been
removed, the buildings are still in use.

Significance: The Pyne mine is one of only two shaft ore mines
in the Birmingham District, and was probably the
deepest and largest of its kind in the region. The
surface plant included one of the first ore
briquetting plants installed in the Birmingham
District. The heavy media plant represented the
culmination of a long series of U.S. Bureau of
Mine experiments designed to determine the
feasibility of beneficiating red ore from Red
Mountains's Clinton formation. The application of

coal mining practice at the ore mine is an example of the unique advantages derived from "straight line production" and the close proximity of ore and coal mines. It was this close proximity which enabled the Woodward Company to bring its ore and coal mining engineers together in the kind of close cooperation that would have been necessary to adapt one body of mining practice to another kind of mining conditions. Mine headquarters buildings and head frame remain.

HISTORICAL OVERVIEW

The Woodward Iron Company began construction of the Pyne mine shaft in 1918 at about the same time that it opened a 384 foot shaft at its nearby Songo mine. These were the only vertical ore mine shafts constructed in the Birmingham District. The 1,214 foot Pyne shaft operated for a few years but was abandoned and allowed to flood. In 1942, in response to the demands of war time production, the Pyne mine was reopened. The water was removed and an innovative mining system, adopted from the panel mining system in use at Woodward's coal mines, was begun. In addition to the innovative mining techniques employed, Woodward also designed and constructed its own loading machines and other equipment. Combined with a very modern and efficient surface plant, the Pyne was capable of producing one million tons of ore per year. According to a contemporary observer this was the largest tonnage deliverable through a single shaft in the United States.

The Pyne mine soon replaced Woodward's slope mines as the company's major source of red ore. Originally ore was loaded into railroad cars at the mine for shipment to the furnaces but later large Euclid trucks hauled the ore to the Woodward No. 3 mine where it was transferred to railroad cars. In the early 1950s, Woodward installed an ore briquetting system in an initial effort to beneficiate its low grade ore. Later the system was upgraded by the addition of a Wemco Drum-type heavy media concentrator. The mine continued to operate until the 1960s when Woodward began to import foreign ore.

The site is currently in use. Tailings are being crushed for use as road aggregate. Headquarters facilities serve a variety of light industries. The headframe appears structurally sound.

There will be substantial redevelopment of the site once the current removal of tailings has been completed.

Sources Consulted

J.H. Stovel, "Sinking and Concreting of Pyne and Songo Mines," Engineering and Mining Journal 3 (May 1921): 698-701; John V. Beall, "Opening the Pyne Mine of the Woodward Iron Co.," Mining Engineering 187 (December, 1950): 1230-1235.
[Footnote 1]

M.D. Harbaugh, "Iron Ore In 1944," Blast Furnace and Steel Plant 33 (January 1944): 75; W.E. Lamont, I.L. Field and B.H. Clemmons, "Benificiation of Red Ore Fines from Pyne Mine, Bessemer, Alabama," Report of Investigation 5779, United States Dept. of Interior, Bureau of Mines, (Washington, D.C.: Government Printing Office, 1961), 2. [Footnote 2]

Bergstresser Inventory, 1990

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Auburn University Urban Design Studio Survey, 1991-1992

Site Visit with Jim Byram, Summer 1991